

**37. (New)** The fuel cell stack according to claim 19, wherein a portion of said wall immediately adjacent to said fuel cell and said sealed passage are made by stamping to accommodate a difference in strain between said fuel cell, said wall, and said sealed passage.

#### **REMARKS/ARGUMENTS**

In the Office Action dated August 30, 2006, the Examiner has rejected **Claims 19-26**. The August 30 Office Action has been carefully considered. After such consideration, **Claims 19-26** remain pending in this application and Applicants respectfully request the addition of **new claims 30-37** in this application. Applicants respectfully request reconsideration of the application by the Examiner in light of the following remarks offered in response to the August 30 Office Action.

#### **Objection to the Drawings**

The Examiner raised the objection for Figure 7 as they do not include the following reference sign(s) mentioned in the description: on page 13, hollow manifold "16" and top wall "18" are not shown. The Applicants respectfully submit a "replacement sheet" pursuant to 37 CFR 1.112 (d).

#### **Objection to the Specification**

The Examiner objected to the disclosure for following informalities: on page 13, fuel cell stake "54" should be changed to fuel cell stake "60" and cathode interconnect "34" should be changed to cathode interconnect "32". The Applicants respectfully submitted the corrected version as depicted in page 2.

#### **Rejections under 35 U. S. C § 112**

Claim 19 has been rejected under 35 U.S.C 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as the invention. The Examiner raised the question that it is unclear how a single wall defines a chamber. On the other hand, Claim 26 has been rejected as being "insufficient antecedent basis" for the limitation "said top wall" in line 2 of this claim. Applicants respectfully submitted the amended claim 1 and claim 26 as attached below for ease of reference:

**19. (Currently amended)** A fuel cell stack comprising:

a first fuel cell assembly and a second fuel cell assembly electrically coupled together such that at least one sealed passage extends between said first and said second fuel cell assemblies, said first and second fuel cell assembly each comprising:

at least one hollow manifold comprising a top wall and bottom wall, and said top and bottom walls extending between a first end and a second end, said top wall and bottom wall comprising at least one opening extending there through in flow communication with said hollow manifold; and

a fuel cell comprising an anode, a cathode and an electrolyte disposed there between, said fuel cell disposed on said wall;

wherein a portion of said top wall and bottom wall immediately adjacent to said fuel cell and said sealed passage are configured to have lower stiffness compared to at least one of said fuel cell and said sealed passage to accommodate a strain between said fuel cell, said wall and said sealed passage.

The amended claim 19 defines clearly the hollow manifold and therefore the Applicants request the Examiner to withdraw the 112 rejections.

**26. (Currently amended)** The fuel cell stack according to claim 19, wherein thermal coefficients of expansion of said fuel cell and said top wall and bottom wall are different.

In view of the amended claim 19 and 26, proper antecedent basis for claim 26 is provided. Therefore, Applicants request the Examiner to withdraw the rejection to claim 26.

**Rejections under 35 U. S. C § 102 (b)**

Claims 19-23 and 25-26 have been rejected as being anticipated by Isobe et al, US 4942099 (hereinafter Isobe). Applicants respectfully traverse the rejection.

To anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim.

Isobe discloses, a molten carbonate fuel cell stack comprising *a plurality of unit cells* stacked in layers, *a plurality of separator elements*, and *a plurality of seal members*, each said seal member including: (a) two annular conductive members, (b) an electrically insulating annular member interposed between the two conductive members, and (c) a second segment channel penetrating the two conductive members and the insulating members. The plurality of seal members helps in preventing the gas in the manifold from leaking out, and insulating the adjacent separator elements.

In contrast, in the present application the fuel cell stack describes a unique hollow manifold comprising a top and bottom wall, extending between a first end and a second end. The top wall comprises at least one opening extending through in flow communication with the hollow manifold. A portion of the top wall or the bottom wall, adjacent to the fuel cell and the sealed passage are configured to have a compliant structure to accommodate a strain arising during the thermal cycle of the fuel cell assembly. Therefore, the compliant structures provided are immediately adjacent to the fuel cell and adjacent to the sealed passages to accommodate the stress during the thermal cycles. Isobe neither discloses nor suggests compliant structures adjacent to the fuel cell as well as the sealed passage. Secondly, in the present application, the compliant structures immediately adjacent to the fuel cell and sealed passages are part of the top wall or the bottom wall, which defines the hollow manifold, whereas in Isobe the "seal members" are never part of the wall.

Therefore Isobe does not disclose all elements of independent claim 19 of the present application. For the reasons discussed above, Applicants submit that claim 19 is allowable over Isobe. Claims 20-23, and 25-26 depend directly from claim 19, and therefore are similarly allowable for the reasons discussed above.

**Rejections under 35 U. S. C 103 (a)**

Claim 24 is rejected under U.S.C. 103 (a) as being unpatentable over Isobe in view of Schora et al (US5077148). Claim 19 is in condition for allowance over Isobe for the reasons discussed above. Claim 24 depends directly from claim 19, which Applicants believe to be in condition for allowance. Accordingly, Applicants respectfully submit that claim 24 defines allowable subject matter over Isobe. Applicants respectfully submit that claim 24 is similarly allowable.

**Summary**

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is requested to contact Applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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